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UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

IM51/0330

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601 13TH STREET NW  
WASHINGTON DC 20005

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/907,182	08/06/97	073	DIAMOND, A	1753 03/30/00
First Named Applicant	YAMAZAKI, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION THIN-FILM PHOTOELECTRIC CONVERSION DEVICE AND A METHOD OF MANUFACTURING THE SAME

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1	07977/023002	438-058,000	K51 UTILITY	NO	\$1210.00	06/30/00

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

**I. Review the SMALL ENTITY status shown above.**

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

**II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.**

**III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.**

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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# Notice of Allowability

Application No.  
08/907,182

Applicant(s)  
Yamazaki et al.

Examiner  
Alan Diamond

Group Art Unit  
1753



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to the terminal disclaimer filed 01/24/00 and the amendment filed 03/22/00.

☒ The allowed claim(s) is/are 26-30, 32-55, 57-76, 78, 79, and 81-102

☒ The drawings filed on Aug 6, 1997 are acceptable.

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/623,336.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☐ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. \_\_\_\_\_.

☐ including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

#  
12/D  
/w.m.  
3/28/00

Art Unit: 1753

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on March 27, 2000, Mr. Samuel Lee requested an extension of time for ONE MONTH and authorized the Commissioner to charge Deposit Account No. 06-1050 the required fee of \$110.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In The Claims

In claim 76, at the second-to-last line, please delete "remove at least one portion" and insert in its place --reduce the concentration--.

In claim 79, at line 1, please delete "said" and insert in its place --the--.

In claim 81, at line 10, after "doping;" please insert --and--.

In claim 83, at line 12, after "doping;" please insert --and--.

In claim 84, at line 12, after "doping;" please insert --and--.

In claim 85, at line 11, after "doping;" please insert --and--.

In claim 89, at line 15, after "doping;" please insert --and--.

In claim 89, bridging the last two lines, please delete "remove at least one portion" and insert in its place --reduce the concentration--.

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In claim 92, at line 3, after "is" please insert --in--.

3. The following is an examiner's statement of reasons for allowance: Independent claim 76 has been amended so as to require that the gettering layer, which includes phosphorus, is formed after the crystallization of the semiconductor film. In JP 5-109737, the phosphorus gettering layer (7) is formed before crystallization of the semiconductor. There is no teaching or suggestion of reversing this process step in JP 5-109737.

Please note that in instant claims 76 and 89, the last two lines have been amended so as to recite "to reduce the concentration of said catalyst metal in said semiconductor film." Upon reconsideration, this language is not indefinite under 35 USC 112, second paragraph, since the semiconductor film has catalyst metal in it before the reduction. The last step recited in each of said claims seeks to reduce the concentration of the catalyst metal. The reduction in concentration is with respect to what is present in the semiconductor film before the reduction. This type of language is supported in the instant specification at page 5, lines 19-20.

The provisional obviousness-type double patenting rejections over copending application Serial Nos. 08/928,750 and 08/928,740 are expressly withdrawn in view of the fact that the instant application is being allowed first and said copending applications are still pending in the Office.

The Terminal Disclaimer filed January 24, 2000, has overcome the obviousness-type double patenting rejection over U.S. Patent 5,700,333.

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The Examiner had requested (during said telephone conversation on March 27, 2000 with Mr. Samuel Lee) that page 24, line 4, of the specification be amended so as to insert "used" after "is". However, upon reconsideration, this amendment is not needed because the substitute specification filed with the preliminary dated August 6, 1997 (Paper No. 3) has already corrected this problem. When requesting the amendment, the Examiner was looking at the specification before it was substituted. The substitute specification has been entered.

Yamazaki et al, U.S. Patent 5,308,998 is hereby made of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan D. Diamond whose telephone number is (703)308-0840.

Alan D. Diamond  
March 29, 2000

  
ALAN DIAMOND  
PRIMARY EXAMINER  
GROUP 1100  
Tech Center 1700